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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/622,746 | 07/21/2003 | Kenji Ikeda | FSF-03511 | 4714 |

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EXAMINER

FAISON, VERONICA F

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1755 | |

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,746

Applicant(s)

IKEDA ET AL.

Examiner

Veronica F. Faison

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7-21-03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claim 4 is objected to because of the following informalities:

Applicant uses the word "type" appended to an otherwise definite phrase (i.e. anthraquinone-type dye). It is the Examiner's opinion that the word "type" does not further definite the term. The Examiner suggests deleting the word "type".

Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2, 4, 7, 9, 16, 18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 6-9, 11 of copending Application No. 10/635,575 (US 2004/0035322). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlaps said published claims and would be obvious thereby. The Examiner would like to point out that even though the

published claims do not recite a surface tension it would be obvious that the published claims would have the same surface tension because the compositions of the application and the published are the same.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18-20 provides for the use of an aqueous ink composition, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 18-20 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-12 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishizuka et al (US Patent 6,613,814)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Ishizuka et al teaches an ink composition comprising a coloring composition containing coloring particulates dispersed in a water-based medium, the coloring particulates containing an oil-soluble polymer and an oil-soluble dye (abstract and col. 2 lines 29-32). The oil soluble dye is at least one type selected from the compounds pyrrolotriazoleazomethine (i.e. methine dye) compound (col. 6 line 47+). The oil-soluble polymer may be selected from conventionally known vinyl polymer containing an anionic group such as carboxylic acid (col. 31 lines 21+). The molecular weight of the vinyl

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polymer is 1,000 through 100,000 (col. 37 lines 26-28). In the coloring composition the amount of oil soluble polymer (vinyl polymer) that is used is preferably 10 to 600 parts by mass (col. 38 line 66-col. 39 line 2). The organic solvent may include alcohols which may be present in the amount of 10 to 2000 parts by mass with respect to 100 parts by mass of the oil soluble polymer (col. 39 lines 13-36). The coloring composition may further comprise additive such as neutralizing agents, dispersion aids and dispersion stabilizers which may be a surfactant (col. 39 line 61-col. 40 line 30). The coloring particulates are contained in the coloring composition in the amount of 1 to 45 percent by mass and has an average particle diameter of the coloring particulates is 1 to 500 nm (col. 40 lines 34-46). The reference further teaches that the coloring composition may be applied to various substrates such as regular paper, resin coated paper and paper for exclusive use with ink jet (col. 40 lines 48-61). The ink for an ink jet containing the coloring composition may contain other components such as polyhydric alcohols and penetration accelerator that is present in the amount of 5 to 30 percent by mass (col. 41 lines 40-58). The reference further teaches that the ink composition has a surface tension of 25 to 70 mN/m and a viscosity of 30 mPa•S or less (col. 42 lines 42-47). The ink composition can be applied by any ink jet method including charge control method, a drop on demand, an acoustic and thermal recording methods (col. 45 lines 24-67). The reference remains silent as to the oil-soluble dye melting point, however it is the position of the Examiner that the oil-soluble dye taught by the reference would inherently have the same melting point because the dye taught by the reference is the

same class of dyes claimed by Applicant. See examples and claims 1, 10, 12. The composition as taught by Ishizuka et al appears to anticipate the claimed invention.

Claims 1-13, 15-18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishizuka et al (US 2001/0023267).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Ishizuka et al teaches an ink composition comprising a coloring composition containing coloring particulates dispersed in a water-based medium, the coloring particulates containing an oil-soluble polymer and an oil-soluble dye (abstract and page 1 para.0013-0014). The oil soluble dye is at least one type selected from the azomethine compound (page 4 para. 0050+). The oil-soluble polymer may be selected from conventionally known vinyl polymer containing an anionic group such as carboxylic acid (page 26 para. 0111-page 27 para 0114). The molecular weight of the vinyl polymer is 1,000 through 100,000 (page 30 para. 0244). In the coloring composition the amount of oil soluble polymer (vinyl polymer) that is used is preferably 10 to 600 parts by mass (col. 38 line 66-col. 39 line 2). The organic solvent may include alcohols which may be present in the amount of 10 to 2000 parts by mass with respect to 100 parts by mass of the oil soluble polymer (page 31 para. 0262). The coloring composition may

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further comprise additive such as neutralizing agents, dispersion aids and dispersion stabilizers which may be a surfactant (page 39 para. 0327). The coloring particulates are contained in the coloring composition in the amount of 1 to 45 percent by mass and has an average particle diameter of the coloring particulates is 1 to 500 nm (page 39 para. 0338-0339). The reference further teaches that the coloring composition may be applied to various substrates such as regular paper, resin coated paper and paper for exclusive use with ink jet (page 40 para. 0342). The ink for an ink jet containing the coloring composition may contain other components such as polyhydric alcohols and penetration accelerator that is present in the amount of 5 to 30 percent by mass (page 40 para. 0350-0354). The reference further teaches that the ink composition as a surface tension of 25 to 70 mN/m and a viscosity of 30 mPa•S or less (page 41 para. 0364-0365). The ink composition can be applied by any ink jet method including charge control method, a drop on demand, an acoustic and thermal recording methods (page 42 para. 04074). The reference remains silent the to the oil-soluble dye melting point, however it is the position of the Examiner that the oil-soluble dye taught by the reference would inherently have the same melting point because the dye taught by the reference is the same class of dyes claimed by Applicant. See examples. The composition as taught by Ishizuka et al appears to anticipate the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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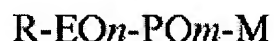
invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizuka et al (US 2001/0023267) as applied to claims 1-13, 15-18 and 20 above, and further in view of Yatake et al (US 2003/0106462).

Ishizuka et al is described above, but fails to teach a surfactant with the molecular weight set forth in claim 14.

Yatake et al teach an ink jet ink comprising a colorant of a pigment and/or dye enveloped in a polymer and water and containing at least one compound selected from the group consisting of acetylene glycol surfactants, acetylene alcohol surfactants, glycol ethers and 1,2-alkylene glycols (abstract and page 2 para. 0017). The reference further teaches that at least one compound selected from the group consisting of polyalcohols and compounds of the following formula (I), which is also known in the art as a surfactant:



wherein the molecular weight of formula (I) is at most 2000, but preferably at most 500 (page 8 para. 0016-0121). The reference discloses that these compounds are used to improve the dispersion stability and ejection stability.

Therefore it would have been obvious to one of ordinary skill in the art to add the surfactant (formula (I) with a molecular weight of at most 2000) of Yatake et al to the ink composition of Ishizuka et al, because Yatake et al teaches that the compound improves ink stability.

Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the Examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Veronica F. Faison whose telephone number is 571-272-1366. The examiner can normally be reached on Monday-Thursday and alternate Fridays 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



YFF
June 27, 2004